

condition	① W film etching speed	② Silicon nitride oxide film etching speed	③ resist film etching speed	selectivity ratio	
	nm/min	nm/min	nm/min	①/②	①/③
CF ₄ /Cl ₂	54.5	35.0	61.7	1.65	0.89
CF ₄ /Cl ₂ /O ₂	94.9	24.2	94.2	4.34	1.01

Table 1

No.	condition					amount of reduction in GI film thickness			
	ICP (W)	Bias (W)	gas	flow rate of gas (sccm)	etching time (sec)	AVERAGE (nm)	MAX (nm)	MIN (nm)	RANGE (nm)
①-1	500	20	CF4/C12	30/30	60	40.00	50.8	23.8	27.0
①-2	500	20	CF4/C12	30/30	120	80.05	97.7	48.7	49.0
②-1	500	20	CF4/C12/O2	25/25/10	60	33.79	42.7	18.5	24.2
②-2	500	20	CF4/C12/O2	25/25/10	80	44.65	58.6	27.0	31.6
③-3	500	20	CF4/C12/O2	25/25/10	100	57.32	73.0	31.6	41.4
③-4	500	20	CF4/C12/O2	25/25/10	120	68.74	82.4	38.7	43.7

pressure : 1 Pa (constant)

Table 2